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June 25, 2003



# Via Federal Express

Thomas M. Dorman Executive Director Public Service Commission of KY 211 Sower Blvd., P.O. Box 615 Frankfort, KY 40602-0615

Re: The Integrated Resource Plan of Big Rivers Electric Corporation, PSC Case No. 2002-00428

Dear Mr. Dorman:

Enclosed are an original and ten copies of the reply comments of Big Rivers Electric Corporation in this matter. A copy of this letter and Big Rivers' reply comments have been served, by mail, postage prepaid, on each of the persons identified on the attached list.

Sincerely yours,

James M. Miller

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# SERVICE LIST PSC CASE NO. 2002-00428

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#### COMMONWEALTH OF KENTUCKY

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PUBLIC SERVICE

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE INTEGRATED RESOURCE PLAN OF	)
BIG RIVERS ELECTRIC CORPORATION	)

CASE NO. 2002-00428

# REPLY COMMENTS OF BIG RIVERS ELECTRIC CORPORATION

Big Rivers Electric Corporation ("<u>Big Rivers</u>"), through its counsel, makes the following comments in reply to the comments filed in this matter by the Attorney General and by the Kentucky Department of Energy ("<u>KDOE</u>").

#### **General Statement**

Big Rivers' Integrated Resource Plan ("IRP") satisfies the requirements of 807 KAR 5:058, that Big Rivers must demonstrate its ability to meet future power requirements on its system with an adequate and reliable supply of electricity at the lowest possible cost. Neither intervenor raises an issue about this subject. Big Rivers files this reply to respond to the comments of intervenors criticizing Big Rivers' evaluation of demand side management ("DSM") methodologies. But the comments of the intervenors on DSM options, and Big Rivers' reply to those comments, must be put into context.

# Number of DSM Programs Analyzed

KDOE complains that the number of DSM programs analyzed quantitatively is relatively small, and that Big Rivers' DSM study focuses too much on individual DSM

technologies rather than analyzing DSM from a systems perspective. Big Rivers has demonstrated that it needs no additional resources to meet the future power requirements on its system during the planning period, whether from DSM, combustion turbines, or any other source. And Big Rivers has furnished all of the DSM data and analyses required by the IRP regulations; no party has asserted otherwise.

Further, a proper study of DSM programs includes thorough consideration of the technologies associated with various equipment and programs. Energy efficient new homes, new commercial building design, and combined heat and power were three programs identified by the KDOE that Big Rivers did not analyze. While the Energy Star new home program has been successfully implemented by other utilities, such a program is not cost effective given Big Rivers' cost structure. Other programs not specifically addressed in the DSM study were also concluded to be non-beneficial to Big Rivers and its member cooperatives due to the low cost of wholesale power under Big Rivers' existing Power Purchase Agreement ("Power Purchase Agreement") with LG&E Energy Marketing ("LEM").

#### Collaboration with KDOE

Big Rivers acknowledges KDOE's request to participate in Big Rivers' demand side planning process. During the course of the IRP process, Big Rivers visited the KDOE.

During the course of the DSM study, Big Rivers' consultant, GDS Associates, contacted KDOE approximately a dozen times by telephone and email with requests for information useful in conducting the DSM analysis, including information regarding energy efficient measures suitable for customers in Kentucky, market penetration of energy efficiency measures within the state, and measure lives and measure savings for alternative programs. Big Rivers will continue

in its attempts to involve the KDOE, which has information useful to the IRP process, in its demand side planning.

### **Net Metering**

KDOE and the Attorney General urge that Big Rivers implement a net metering pilot program without waiting for the results from the LG&E/KU pilot net metering program. They contend that net metering is an appropriate way for a consumer-owned cooperative to bestow a benefit on its members.

Big Rivers remains convinced that awaiting the results of the Louisville Gas & Electric Company pilot net metering program before proceeding with a program of its own is prudent, and likely the most cost-effective course of action. This cautious approach is driven by the lack of demand for a net metering program in the service areas of Big Rivers' member cooperatives, and by the costs and risks of that program.

Big Rivers operates, by law, for the mutual benefit of its members and patrons.

Net metering would allow a retail consumer with a specified self-generation capability to have a meter that rolls forward when the consumer takes power from the distribution system, and rolls backwards when the consumer exports power to the distribution system. Assuming that the impacts of net metering come to rest on Big Rivers' doorstep, net metering would require Big Rivers to pay a price that is higher than the Power Purchase Agreement price (essentially the member cooperative retail tariff price) for energy that it does not need to satisfy its system's wholesale power requirements. This benefits the selling consumer, but Big Rivers must carefully analyze the implications of net metering for its system as a whole. Under the circumstances, Big Rivers believes that awaiting the outcome of the Louisville Gas & Electric

Company pilot program may save Big Rivers (and ultimately its members) money, and give it valuable guidance for investigating the reasonableness of a net metering pilot program for Big Rivers and its members.

There are other costs and risks associated with net metering, too. Net metering costs would certainly be impacted by measures required to address safety issues. For instance, allowing a meter to spin backwards could energize a line that otherwise is thought to be deenergized. Visible switches are necessary at each facility to clearly show that the local system is operating. In addition to measures required to insure the safety of utility personnel, measures would also have to be taken to insure the safety of the electric system. Equipment to monitor and control the voltage of power going into the system would need to be installed.

Another issue raised by net metering is the cost-effectiveness of renewable resources compared to the average cost to Big Rivers of power under the Power Purchase Agreement. Costs can vary across resource types and by individual installations, but on average, and proven by the results contained in the IRP, there are no renewable resources that are as cost effective as Big Rivers' current contract. See IRP, Appendix C.

KDOE states that it has available, and is willing to share with Big Rivers, model net metering provisions based on information from several states. Big Rivers is open to considering all pertinent information regarding net metering, and would appreciate the opportunity to review the information identified by KDOE.

# Value for Avoided Cost of Capacity

KDOE argues that Big Rivers errs by using a zero value for the avoided cost of capacity in analyzing DSM measures, because Big Rivers can sell excess capacity on the

wholesale market. Big Rivers should apply some value to capacity in future DSM analyses, according to KDOE.

For purposes of evaluating DSM measures, it is entirely appropriate to use an avoided capacity cost of zero. The Power Purchase Agreement does not include a discrete demand cost. The purchases are priced on a 100% variable basis. Reducing demand associated with purchases from LEM, whether by installing new capacity or by reducing demand using DSM measures, would have no impact on demand costs associated with LEM purchases because there are none. To the extent that DSM measures result in fewer MWh being purchased from LEM, purchased power costs would be reduced. The cost of energy associated with the LEM contract has been factored into the DSM analysis.

KDOE states that it is not recommending that Big Rivers implement DSM programs for the sole purpose of becoming an energy marketer. KDOE Comments, pages 4-5. KDOE states further that it is "recommending that Big Rivers implement cost-effective new DSM programs whose primary purpose would be to help Big Rivers' ultimate customers reduce their energy bills." The DSM analysis included the impact of avoided energy (\$/MWh) costs. There would be no reduction in energy bills associated with reduced demand purchases from LEM; therefore, it is appropriate to use a zero avoided demand cost in the analysis as long as the LEM contract exists. KDOE's suggestion is actually that Big Rivers use DSM to promote retail consumer energy conservation.

If DSM freed up capacity in the amounts and of the quality typically bought and sold in the wholesale power market, there might very well be value associated with the sale of excess power into that market. Big Rivers agrees with KDOE, however, that it should not

<sup>&</sup>lt;sup>1</sup> But Big Rivers would also lose margins on those sales that currently contribute to its revenue.

implement DSM programs for the sole purpose of energy marketing. Furthermore, Big Rivers' market power sales are typically short-term deals; therefore, there is no certainty that similar type power sales will be made in the future. Finally, Big Rivers questions whether a DSM measure should be considered viable if that viability turns on the wholesale market price of electricity.

#### Conclusion

Big Rivers' IRP satisfies the requirements of the Commission as reflected in the Commission's IRP regulations. The discussion of DSM measures will have more relevance in future Big Rivers' IRP proceedings, if and when Big Rivers requires additional capacity resources to meet its system's requirements for power.

Respectfully submitted, on this the 25th day of June, 2003.

SULLIVAN, MOUNTJOY, STAINBACK & MILLER, P.S.C.

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